ABSTRACT

The invention provides a method, apparatus and algorithm for data processing that allows for hypothesis generation and the quantitative evaluation of its validity. The core procedure of the method is the construction of a hypothesis-parameter, acting as an "ego" of the non-biological

5   reasoning system. A hypothesis-parameter may be generated either based on totality of general knowledge facts as a global description of data, or by a specially designed "encapsulation" technique providing for generation of hypothesis-parameters in unsupervised automated mode, after which a hypothesis-parameter is examined for the concordance with a totality of parameters describing objects under analysis. The hypothesis examination (verification) is done by establishing a number

10   of copies of a hypothesis-parameter that may adequately compensate for the rest of existing parameters so that the clustering could rely on a suggested hypothesis-parameter. The method of this invention is based on the principle of the information thyristor and represents its practical implementation.

This invention can be used as a universal computer-based recognition system in robotic

15   vision, intelligent decision-making and machine-learning.